

Thursday, March 20, 2003  
POSTER SESSION II  
7:00 p.m. Fitness Center

Mars Missions

Smith P. H.

*The Phoenix Scout Mission* [#1855]

The Phoenix Scout Mission, selected by NASA to continue into Step 2, flies the 2001 lander and many existing instruments. Landing on the near-surface ice at 65N, it will dig into the soil, explore local geology and chemistry, and test for organic molecules.

Shiomi K. Yamazaki A. Yoshikawa I. Takizawa Y. Nakamura M.

*Post-Launch Calibration of the Planet-B Extreme Ultraviolet Scanner* [#1207]

Extreme Ultraviolet scanner on the Japanese Mars explorer Planet-B aims at detecting resonantly scattered light helium gas and ions in Martian atmosphere. Onboard calibration was studied with moonlight in the parking orbit around earth.

Wiens R. C. Thiemens M. H. Leshin L. A. Clark B. C.

*Scientific Benefit of a Hypervelocity Mars Atmospheric Sample Capture and Earth Return with the SCIM Mission* [#1199]

A returned sample of the Mars atmosphere would provide very critical information (e.g., high precision O-16,-17,-18; C-14) not obtainable by *in situ* measurements. We discuss science goals achievable with the proposed SCIM sample return mission.

Thompson T. W. Horttor R. L. Acton C. H. Jr. Arroyo B. Butman S. Jepsen P. L. Johnson W. T. K. Plaut J. J. Holmes D. P. Vaonys A.

*The Mars Express/NASA Project at JPL* [#1661]

This report provides an overview of NASA's contribution to ESA — a Mars Express Mission.

Martin P. D.

*Investigating the Spectral and Compositional Properties of the Martian Surface Using HRSC, OMEGA, PFS and SPICAM Onboard the ESA Mars Express Mission* [#1648]

Spectral and compositional investigations will be carried out on the unprecedented stereo images, multi-/hyper-spectral visible/near-infrared data sets, and UV-infrared spectra to be returned by the ESA Mars Express mission.

Bonello G. Bibring J. P. Morris R. V. Mustard J. F.

*OMEGA Observations of Mars Analogue Rocks* [#1664]

We present the reflectance measurements made with OMEGA during on ground calibration sessions on natural slabs of rocks. We discuss the implication on the OMEGA scientific capabilities.

Di Lorenzo S. Rossi A. P.

*Possible Geological Scenarios for the MARSIS Experiment* [#1850]

The aim of this work is to simulate the MARSIS response on plausible geological scenarios and help in interpreting future data acquired by the instrument.

Gulick V. C. Morris R. L. Gazis P. Bishop J. L. Alena R. Hart S. D. Horton A.

*Automated Rock Identification for Future Mars Exploration Missions* [#2103]

This abstract summarizes our progress on the Geologist's Field Assistant project to develop an automated rock identification system. For igneous rocks, preliminary tests indicate that our algorithms are able to distinguish plutonic vs. volcanic rocks with approx. 90% success.

Yingst R. A. Haldemann A. F. C. Lemmon M. T.

*Classification of Mars Pathfinder Rock Surfaces Using Quantitative Morphologic Indices* [#1081]

We have examined rock morphology in two regions of the MPF landing site and have correlated this with spectral data extracted from associated rock surfaces, with the goal of improving the likelihood of discerning between rock surface spectral types.

Michael G. G. Chicarro A. F. Rodionova J. F. Shevchenko V. V. Iluhina J. Kozlova E. A.

*Beagle-2 Landing Site Atlas* [#1695]

We are compiling an atlas of the presently available data products pertinent to the Beagle-2 landing site at 11.6N 90.75E, which is intended for distribution both as a printed and an electronic resource.